

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/579,117
Source: IFWP
Date Processed by STIC: 5/25/06

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/579,117

CRF Edit Date: 5/25/06
Edited by: AZ

_____ **Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line**

_____ **Corrected the SEQ ID NO. Sequence numbers edited were:**

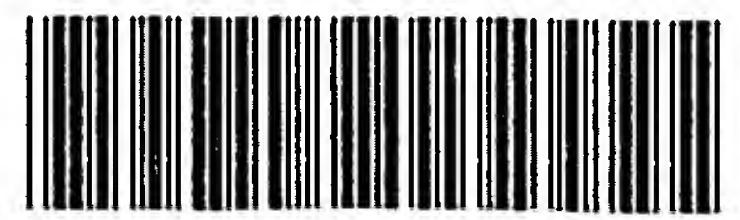
_____ **Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:**

✓ Deleted: J invalid beginning/end-of-file text ; _____ page numbers

_____ **Inserted mandatory headings/numeric identifiers, specifically:**

_____ **Moved responses to same line as heading/numeric identifier, specifically:**

_____ **Other:**



IFWP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/579,117

DATE: 05/25/2006
TIME: 11:28:10

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05252006\J579117.raw

3 <110> APPLICANT: ASTRAZENECA AB
 5 <120> TITLE OF INVENTION: CARBOXYPERTIDASE U (CPU) MUTANTS
 7 <130> FILE REFERENCE: LDG/101278
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/579,117
 C--> 9 <141> CURRENT FILING DATE: 2006-05-11
 9 <160> NUMBER OF SEQ ID NOS: 19
 11 <170> SOFTWARE: PatentIn version 3.2
 13 <210> SEQ ID NO: 1
 14 <211> LENGTH: 1269
 15 <212> TYPE: DNA
 16 <213> ORGANISM: Homo sapiens
 18 <400> SEQUENCE: 1
 19 atgaagctt gcagccttgc agtccttgta cccattgttc tcttctgtga gcagcatgtc 60
 21 ttcgcgtttc agagtggcca agttctagct gctttccta gaacctctag gcaagttcaa 120
 23 gttctacaga atcttactac aacatatgag attgttctct ggtagccgtt aacagctgac 180
 25 cttattgtga agaaaaaaaca agtccatttt ttgttaatg catctgtatgt cgacaatgtg 240
 27 aaagcccatt taaatgtgag cgaaattcca tgcagtgtct tgctggcaga cgtggaagat 300
 29 cttattcaac agcagatttc caacgacaca gtcagcccc gagcctccgc atcgtactat 360
 31 gaacagtatc actcactaaa tgaaatctat tcttggatag aatttataac tgagaggcat 420
 33 cctgatatgc ttacaaaaat ccacatttga tcctcattt agaagtaccc actctatgtt 480
 35 ttaaagggtt ctggaaaaga acaagcagcc aaaaatgccat tatggattga ctgtggaatc 540
 37 catgccagag aatggatctc tcctgctttc tgcttgggt tcataggcca tataactcaa 600
 39 ttctatggga taatagggca atataccat ctcctgaggc ttgtggattt ctatgttatg 660
 41 ccgggtggta atgtggatgg ttatgactac tcgtggaaaa agaatcgaat gtggagaaag 720
 43 aaccgttctt tctatgcgaa caatcattgc atcggAACAG acctgaatag gaactttgct 780
 45 tccaaacact ggtgtgagga aggtgcattt agttcctcat gctcgaaac ctactgtgga 840
 47 ctttatcctg agtcagaacc agaagtgaag gcagtggcta gtttcttgag aagaaatatc 900
 49 aaccagatta aagcatacat cagcatgcatt tcatactccc agcatatagt gttccatata 960
 51 tcctatacac gaagtaaaag caaagaccat gaggaactgt ctctagtagc cagtgaagca 1020
 53 gttcggtcta ttgagaaaac tagaaaaat accaggtata cacatggcca tggctcagaa 1080
 55 accttataacc tagctcctgg aggtggggac gattggatct atgatttggg catcaaataat 1140
 57 tcgtttacaa ttgaacttcg agatacgggc acatacggat tcttgctgcc ggagcgttac 1200
 59 atcaaaccac cctgttagaga agctttgcc gctgtctcta aaatagctg gcatgtcatt 1260
 61 aggaatgtt 1269
 64 <210> SEQ ID NO: 2
 65 <211> LENGTH: 423
 66 <212> TYPE: PRT
 67 <213> ORGANISM: Homo sapiens
 69 <400> SEQUENCE: 2
 71 Met Lys Leu Cys Ser Leu Ala Val Leu Val Pro Ile Val Leu Phe Cys
 72 1 5 10 15
 75 Glu Gln His Val Phe Ala Phe Gln Ser Gly Gln Val Leu Ala Ala Leu
 76 20 25 30

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/579,117

DATE: 05/25/2006
TIME: 11:28:10

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05252006\J579117.raw

```

79 Pro Arg Thr Ser Arg Gln Val Gln Val Leu Gln Asn Leu Thr Thr Thr
80      35          40          45
83 Tyr Glu Ile Val Leu Trp Gln Pro Val Thr Ala Asp Leu Ile Val Lys
84      50          55          60
87 Lys Lys Gln Val His Phe Phe Val Asn Ala Ser Asp Val Asp Asn Val
88 65          70          75          80
91 Lys Ala His Leu Asn Val Ser Gly Ile Pro Cys Ser Val Leu Leu Ala
92          85          90          95
95 Asp Val Glu Asp Leu Ile Gln Gln Ile Ser Asn Asp Thr Val Ser
96          100         105         110
99 Pro Arg Ala Ser Ala Ser Tyr Tyr Glu Gln Tyr His Ser Leu Asn Glu
100         115         120         125
103 Ile Tyr Ser Trp Ile Glu Phe Ile Thr Glu Arg His Pro Asp Met Leu
104         130         135         140
107 Thr Lys Ile His Ile Gly Ser Ser Phe Glu Lys Tyr Pro Leu Tyr Val
108 145          150          155          160
111 Leu Lys Val Ser Gly Lys Glu Gln Ala Ala Lys Asn Ala Ile Trp Ile
112          165          170          175
115 Asp Cys Gly Ile His Ala Arg Glu Trp Ile Ser Pro Ala Phe Cys Leu
116          180          185          190
119 Trp Phe Ile Gly His Ile Thr Gln Phe Tyr Gly Ile Ile Gly Gln Tyr
120          195          200          205
123 Thr Asn Leu Leu Arg Leu Val Asp Phe Tyr Val Met Pro Val Val Asn
124          210          215          220
127 Val Asp Gly Tyr Asp Tyr Ser Trp Lys Lys Asn Arg Met Trp Arg Lys
128 225          230          235          240
131 Asn Arg Ser Phe Tyr Ala Asn Asn His Cys Ile Gly Thr Asp Leu Asn
132          245          250          255
135 Arg Asn Phe Ala Ser Lys His Trp Cys Glu Glu Gly Ala Ser Ser Ser
136          260          265          270
139 Ser Cys Ser Glu Thr Tyr Cys Gly Leu Tyr Pro Glu Ser Glu Pro Glu
140          275          280          285
143 Val Lys Ala Val Ala Ser Phe Leu Arg Arg Asn Ile Asn Gln Ile Lys
144          290          295          300
147 Ala Tyr Ile Ser Met His Ser Tyr Ser Gln His Ile Val Phe Pro Tyr
148 305          310          315          320
151 Ser Tyr Thr Arg Ser Lys Ser Lys Asp His Glu Glu Leu Ser Leu Val
152          325          330          335
155 Ala Ser Glu Ala Val Arg Ala Ile Glu Lys Thr Ser Lys Asn Thr Arg
156          340          345          350
159 Tyr Thr His Gly His Gly Ser Glu Thr Leu Tyr Leu Ala Pro Gly Gly
160          355          360          365
163 Gly Asp Asp Trp Ile Tyr Asp Leu Gly Ile Lys Tyr Ser Phe Thr Ile
164          370          375          380
167 Glu Leu Arg Asp Thr Gly Thr Tyr Gly Phe Leu Leu Pro Glu Arg Tyr
168 385          390          395          400
171 Ile Lys Pro Thr Cys Arg Glu Ala Phe Ala Ala Val Ser Lys Ile Ala
172          405          410          415
175 Trp His Val Ile Arg Asn Val

```

RAW SEQUENCE LISTING DATE: 05/25/2006
 PATENT APPLICATION: US/10/579,117 TIME: 11:28:10

Input Set : A:\PTO.AMC.txt
 Output Set: N:\CRF4\05252006\J579117.raw

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176          420
179 <210> SEQ ID NO: 3
180 <211> LENGTH: 52
181 <212> TYPE: DNA
182 <213> ORGANISM: Artificial
184 <220> FEATURE:
185 <223> OTHER INFORMATION: Oligonucleotide Primer
187 <400> SEQUENCE: 3
188 tgctctagag cggccgcggg atgaagcttt gcagccttgc agtccttgta cc      52
191 <210> SEQ ID NO: 4
192 <211> LENGTH: 60
193 <212> TYPE: DNA
194 <213> ORGANISM: Artificial
196 <220> FEATURE:
197 <223> OTHER INFORMATION: Oligonucleotide Primer
199 <400> SEQUENCE: 4
200 atgatgtatgc ttatcgcat cgtccccggg ctcgagaaca ttcctaattga catgccaagc      60
203 <210> SEQ ID NO: 5
204 <211> LENGTH: 64
205 <212> TYPE: DNA
206 <213> ORGANISM: Artificial
208 <220> FEATURE:
209 <223> OTHER INFORMATION: Oligonucleotide Primer
211 <400> SEQUENCE: 5
212 cgggttaccc tattaagatc cactatgtatg atgatgtatga tggatgtatc tatcgatcatc      60
214 gtcc
217 <210> SEQ ID NO: 6
218 <211> LENGTH: 66
219 <212> TYPE: DNA
220 <213> ORGANISM: Artificial
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Oligonucleotide Primer
225 <400> SEQUENCE: 6
226 ggggacaagt ttgtacaaaa aagcaggctt caccatgaag ctgtgcagcc ttgcagtcct      60
228 tgtacc
231 <210> SEQ ID NO: 7
232 <211> LENGTH: 66
233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Oligonucleotide
239 <400> SEQUENCE: 7
240 ggggaccact ttgtacaaga aagctgggtc ctaagatcca ctatgtatgat gatgtatgt      60
242 atgatg
245 <210> SEQ ID NO: 8
246 <211> LENGTH: 18
247 <212> TYPE: DNA
248 <213> ORGANISM: Artificial
250 <220> FEATURE:
  
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RAW SEQUENCE LISTING DATE: 05/25/2006
PATENT APPLICATION: US/10/579,117 TIME: 11:28:10

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05252006\J579117.raw

```

251 <223> OTHER INFORMATION: Oligonucleotide Primer
253 <400> SEQUENCE: 8
254 acccattgtt ctcttctg 18
257 <210> SEQ ID NO: 9
258 <211> LENGTH: 20
259 <212> TYPE: DNA
260 <213> ORGANISM: Artificial
262 <220> FEATURE:
263 <223> OTHER INFORMATION: Oligonucleotide Primer
265 <400> SEQUENCE: 9
266 ttggccttgc tggaatcagt 20
269 <210> SEQ ID NO: 10
270 <211> LENGTH: 57
271 <212> TYPE: DNA
272 <213> ORGANISM: Artificial
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Oligonucleotide Primer
277 <400> SEQUENCE: 10
278 ccaagcttca tcccaacagc aattttctct agatctggtg aagctggagc tacggag 57
281 <210> SEQ ID NO: 11
282 <211> LENGTH: 18
283 <212> TYPE: DNA
284 <213> ORGANISM: Artificial
286 <220> FEATURE:
287 <223> OTHER INFORMATION: Oligonucleotide Primer
289 <400> SEQUENCE: 11
290 tgccaaaggc gcgtccc 18
293 <210> SEQ ID NO: 12
294 <211> LENGTH: 422
295 <212> TYPE: PRT
296 <213> ORGANISM: Mus musculus
298 <400> SEQUENCE: 12
300 Met Lys Leu His Gly Leu Gly Ile Leu Val Ala Ile Ile Leu Tyr Glu
301 1 5 10 15
304 Gln His Gly Phe Ala Phe Gln Ser Gly Gln Val Leu Ser Ala Leu Pro
305 20 25 30
308 Arg Thr Ser Arg Gln Val Gln Leu Leu Gln Asn Leu Thr Thr Thr Tyr
309 35 40 45
312 Glu Val Val Leu Trp Gln Pro Val Thr Ala Glu Phe Ile Glu Lys Lys
313 50 55 60
316 Lys Glu Val His Phe Phe Val Asn Ala Ser Asp Val Asp Ser Val Lys
317 65 70 75 80
320 Ala His Leu Asn Val Ser Arg Ile Pro Phe Asn Val Leu Met Asn Asn
321 85 90 95
324 Val Glu Asp Leu Ile Glu Gln Gln Thr Phe Asn Asp Thr Val Ser Pro
325 100 105 110
328 Arg Ala Ser Ala Ser Tyr Tyr Glu Gln Tyr His Ser Leu Asn Glu Ile
329 115 120 125
332 Tyr Ser Trp Ile Glu Val Ile Thr Glu Gln His Pro Asp Met Leu Gln

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/579,117

DATE: 05/25/2006
TIME: 11:28:10

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05252006\J579117.raw

333	130	135	140
336	Lys Ile Tyr Ile Gly Ser Ser Phe Glu Lys Tyr Pro Leu Tyr Val Leu		
337	145	150	155
340	160		
341	Lys Val Ser Gly Lys Glu Gln Arg Ile Lys Asn Ala Ile Trp Ile Asp		
344	165	170	175
345	Cys Gly Ile His Ala Arg Glu Trp Ile Ser Pro Ala Phe Cys Leu Trp		
348	180	185	190
349	Phe Ile Gly Tyr Val Thr Gln Phe His Gly Lys Glu Asn Leu Tyr Thr		
352	195	200	205
353	Arg Leu Leu Arg His Val Asp Phe Tyr Ile Met Pro Val Met Asn Val		
356	210	215	220
357	Asp Gly Tyr Asp Tyr Thr Trp Lys Lys Asn Arg Met Trp Arg Lys Asn		
360	225	230	235
361	240		
364	Arg Ser Ala His Lys Asn Asn Arg Cys Val Gly Thr Asp Leu Asn Arg		
365	245	250	255
368	Asn Phe Ala Ser Lys His Trp Cys Glu Lys Gly Ala Ser Ser Ser		
369	260	265	270
372	Cys Ser Glu Thr Tyr Cys Gly Leu Tyr Pro Glu Ser Glu Pro Glu Val		
373	275	280	285
376	Lys Ala Val Ala Asp Phe Leu Arg Arg Asn Ile Asp His Ile Lys Ala		
377	290	295	300
380	305	310	315
381	320		
384	Tyr Ile Ser Met His Ser Tyr Ser Gln Gln Ile Leu Phe Pro Tyr Ser		
385	325	330	335
388	Tyr Asn Arg Ser Lys Ser Lys Asp His Glu Glu Leu Ser Leu Val Ala		
389	340	345	350
392	355	360	365
393	Thr His Gly Ser Gly Ser Glu Ser Leu Tyr Leu Ala Pro Gly Gly Ser		
396	370	375	380
397	Leu Arg Asp Thr Gly Arg Tyr Gly Phe Leu Leu Pro Glu Arg Tyr Ile		
400	385	390	395
401	400	405	410
404	415		
405	His Val Ile Arg Asn Thr		
408	420		
409	<210> SEQ ID NO: 13		
410	<211> LENGTH: 422		
411	<212> TYPE: PRT		
413	<213> ORGANISM: Rattus norvegicus		
415	<400> SEQUENCE: 13		
416	Met Lys Leu Tyr Gly Leu Gly Val Leu Val Ala Ile Ile Leu Tyr Glu		
417	1 5 10 15		
419	Lys His Gly Leu Ala Phe Gln Ser Gly His Val Leu Ser Ala Leu Pro		
420	20 25 30		
423	Arg Thr Ser Arg Gln Val Gln Leu Leu Gln Asn Leu Thr Thr Thr Tyr		
424	35 40 45		
427	Glu Val Val Leu Trp Gln Pro Val Thr Ala Glu Phe Ile Glu Lys Lys		

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/579,117

DATE: 05/25/2006
TIME: 11:28:11

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05252006\J579117.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:3,4,5,6,7,8,9,10,11,14,15,16

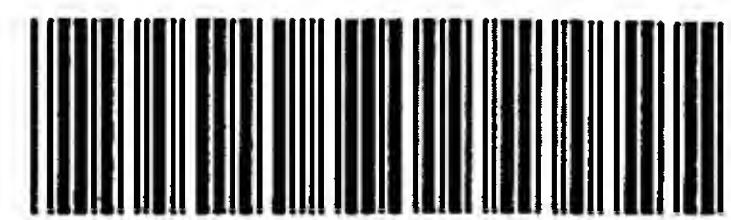
VERIFICATION SUMMARY
PATENT APPLICATION: US/10/579,117

DATE: 05/25/2006
TIME: 11:28:11

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05252006\J579117.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date

Raw Sequence Listing before editing (for reference only)



IFWP

RAW SEQUENCE LISTING DATE: 05/23/2006
PATENT APPLICATION: US/10/579,117 TIME: 14:27:02

Input Set : A:\Carboxypertidase U (CPU) Mutants.txt
Output Set: N:\CRF4\05232006\J579117.raw

3 <110> APPLICANT: ASTRAZENECA AB
5 <120> TITLE OF INVENTION: CARBOXYPERTIDASE U (CPU) MUTANTS
7 <130> FILE REFERENCE: LDG/101278
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/579,117
C--> 9 <141> CURRENT FILING DATE: 2006-05-11
9 <160> NUMBER OF SEQ ID NOS: 19
11 <170> SOFTWARE: PatentIn version 3.2

ERRORED SEQUENCES

**Does Not Comply
Corrected Diskette Needed**

795 <210> SEQ ID NO: 19
796 <211> LENGTH: 423
797 <212> TYPE: PRT
798 <213> ORGANISM: Homo sapiens f.2
800 <400> SEQUENCE: 19
802 Met Lys Leu Cys Ser Leu Ala Val Leu Val Pro Ile Val Leu Phe Cys
803 1 5 10 15
806 Glu Gln His Val Phe Ala Phe Gln Ser Gly Gln Val Leu Ala Ala Leu
807 20 25 30
810 Pro Arg Thr Ser Arg Gln Val Gln Val Leu Gln Asn Leu Thr Thr Thr
811 35 40 45
814 Tyr Glu Ile Val Leu Trp Gln Pro Val Thr Ala Asp Leu Ile Val Lys
815 50 55 60
818 Lys Lys Gln Val His Phe Phe Val Asn Ala Ser Asp Val Asp Asn Val
819 65 70 75 80
822 Lys Ala His Leu Asn Val Ser Gly Ile Pro Cys Ser Val Leu Leu Ala
823 85 90 95
826 Asp Val Glu Asp Leu Ile Gln Gln Ile Ser Asn Asp Thr Val Ser
827 100 105 110
830 Pro Arg Ala Ser Ala Ser Tyr Tyr Glu Gln Tyr His Ser Leu Asn Glu
831 115 120 125
834 Ile Tyr Ser Trp Ile Glu Phe Ile Thr Glu Arg His Pro Asp Met Leu
835 130 135 140
838 Thr Lys Ile His Ile Gly Ser Ser Phe Glu Lys Tyr Pro Leu Tyr Val
839 145 150 155 160
842 Leu Lys Val Ser Gly Lys Glu Gln Ala Ala Lys Asn Ala Ile Trp Ile
843 165 170 175
846 Asp Cys Gly Ile His Ala Arg Glu Trp Ile Ser Pro Ala Phe Cys Leu
847 180 185 190
850 Trp Phe Ile Gly His Ile Thr Gln Phe Tyr Gly Ile Ile Gly Gln Tyr
851 195 200 205
854 Thr Asn Leu Leu Arg Leu Val Asp Phe Tyr Val Met Pro Val Val Asn

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/579,117

DATE: 05/23/2006

TIME: 14:27:03

Input Set : A:\Carboxypertidase U (CPU) Mutants.txt
Output Set: N:\CRF4\05232006\J579117.raw

855	210	215	220
858	Val Asp Gly Tyr Asp Tyr Ser Trp Lys Lys Asn Arg Met Trp Arg Lys		
859	225	230	235
862	Asn Arg Ser Phe Tyr Ala Asn Asn His Cys Ile Gly Thr Asp Leu Asn		240
863	245	250	255
866	Arg Asn Phe Ala Ser Lys His Trp Cys Glu Glu Gly Ala Ser Ser Ser		
867	260	265	270
870	Ser Cys Ser Glu Thr Tyr Cys Gly Leu Tyr Pro Glu Ser Glu Pro Glu		
871	275	280	285
874	Val Lys Ala Val Ala Ser Phe Leu Arg Arg Asn Ile Asn Gln Ile Lys		
875	290	295	300
878	Ala Tyr Ile Ser Met His Ser Tyr Ser Gln His Ile Val Phe Pro Tyr		
879	305	310	315
882	Ser Tyr Thr Arg Ser Lys Cys Lys Asp His Glu Glu Leu Ser Leu Val		320
883	325	330	335
886	Ala Ser Glu Ala Val Arg Ala Ile Glu Lys Thr Ser Lys Asn Thr Arg		
887	340	345	350
890	Tyr Thr Tyr Gly Gln Gly Ser Glu Thr Leu Tyr Leu Ala Pro Gly Gly		
891	355	360	365
894	Gly Asp Asp Trp Ile Tyr Asp Leu Gly Ile Lys Tyr Ser Phe Thr Ile		
895	370	375	380
898	Glu Leu Arg Asp Thr Gly Thr Tyr Gly Phe Leu Leu Pro Glu Arg Tyr		
899	385	390	395
902	Ile Lys Pro Thr Cys Arg Glu Ala Phe Ala Ala Val Ser Lys Ile Ala		400
903	405	410	415
906	Trp His Val Ile Arg Asn Val		
907	420		

E--> 913 101278

E--> 915 - 1 -

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/579,117

DATE: 05/23/2006
TIME: 14:27:04

Input Set : A:\Carboxypertidase U (CPU) Mutants.txt
Output Set: N:\CRF4\05232006\J579117.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:3,4,5,6,7,8,9,10,11,14,15,16

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/579,117

DATE: 05/23/2006

TIME: 14:27:04

Input Set : A:\Carboxypertidase U (CPU) Mutants.txt
Output Set: N:\CRF4\05232006\J579117.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:913 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:19
M:332 Repeated in SeqNo=19